

What is claimed is:

1 1. A portable communication unit comprising:
2 a printed circuit board on which a radio unit composed of
3 a transmitter and a receiver is mounted,
4 an internal antenna which is classified into an inverted
5 F shaped antenna or a dielectric antenna,
6 an antenna metal element which is connected with a feeding
7 point of said internal antenna at an output end thereof, and brought
8 into contact with a feeding terminal formed on said printed circuit
9 board at an input end thereof,
10 a front case which is provided with a data-inputting key,
11 an information-displaying means, a speaker, and a microphone, and
12 a rear case which is provided with a space for accommodating
13 said internal antenna, and fitted to said front case to form a
14 casing,
15 wherein said internal antenna is supported between said rear
16 case and said printed circuit board.

1 2. A portable communication unit according to claim 1,
2 wherein:
3 said space in said rear cover for accommodating said internal
4 antenna is a cavity which is fit for said internal antenna.

1 3. A portable communication unit according to claim 1,
2 wherein:
3 a conductive painting is applied to a predetermined region
4 of an inner surface of said rear case, and brought into contact

5 with a grounding pattern of said printed circuit board.

1 4. A portable communication unit according to claim 3,
2 wherein:

3 said conductive painting is applied to a region which is
4 opposite said radio unit at least.

1 5. A portable communication unit according to claim 3,
2 wherein:

3 said internal antenna is composed of:

4 a radiator which is situated inside said rear case and
5 connected with said metal element,

6 a reflecting plane which is situated opposite to said
7 radiator maintaining a predetermined interval therebetween, and

8 connecting terminals which connect an edge of said
9 reflecting plane with said conductive painting.

1 6. An internal antenna of a portable communication unit
2 which is accommodated in a casing composed of a front case and
3 a rear case together with a printed circuit board, comprising:

4 a radiator situated inside said rear case,

5 an antenna metal element which is connected with said
6 radiator at an output end thereof, and brought into contact with
7 a feeding terminal formed on said printed circuit board at an input
8 end thereof,

9 a reflecting plane which is situated opposed to said
10 radiator maintaining a predetermined interval therebetween,

11 a conductive painting which is applied to an inner surface

12 of said rear case and brought into contact with a grounding pattern
13 of said printed circuit board, and
14 connecting terminals which connect an edge of said
15 referencing plane with said conductive painting via contacting
16 means.

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